SCIENCE

Lesson 5

Year 1

Topic: Habitats and living things

Investigating the local environment

Lesson concepts

- Living things live in different places where their needs are met
- Science involves asking questions and describing changes
- People use science in their daily lives
- Questions can be responded to and posed
- Observations can be collected and recorded
- Observations can be compared with others
- Observations and ideas can be represented and communicated

Today students will:

► understand what a healthy habitat is.

Resources

Digital

Slideshow — Healthy and unhealthy habitats

Video — Backyard investigation (2:10)

Sheet

Sheet 11 — Field study record: Healthy habitats

Find and prepare

Digital camera

Magnifying glass (optional)

Protective gloves

Protective eyewear

Hat

Clipboard

Before the lesson, think about the local environment and identify a variety of healthy habitats, for example: a vegetable garden, a flower garden, a bushy area

Key terms

healthy habitat, unhealthy habitat

For definitions and explanations of terms, please see the Glossary.

Learning alerts

Be aware of students thinking that the word *healthy* refers only to people.

Suggested next steps for learning

Explain that a healthy habitat is one that is able to provide for the needs of living things.

Lesson

Compare healthy and unhealthy habitats

1. Review with students that previously they looked at pictures and talked about different types of habitats where the needs of living things are met.

Focus questions

Q. *How would you know if a habitat is healthy?*

A. For example: It would have sunlight, water and shelter to meet the needs of the living things that live there.

Say to students

Science knowledge is used to find out about healthy habitats and how to care for them.

A **healthy** habitat is a habitat that provides for the needs of living things.

An **unhealthy** habitat is one that doesn't provide adequately for the needs of living things because it does not have enough food, water or shelter to support life.

2. View the **Slideshow — Healthy and unhealthy habitats**.[i]

   Read and discuss the information on each slide, comparing features of the healthy and unhealthy habitats.

Slideshow

i. Images courtesy of morguefile.com

Focus questions

Q. *How does the healthy habitat meet the needs of the living things that live there?*

A. For example: The rainforest meets the needs of the frog because it is shady and damp, and there's lots of food for the frog and places for it to live.

Q. *Why doesn't the unhealthy habitat meet the needs of the living things?*

A. For example: The plants are dead because it is very dry, and there is no food for the frog and nowhere for it to live.

Say to students

"People use their science knowledge in their everyday lives when they care for the environment. Caring for the environment includes looking after living things and their habitats."

Investigate a healthy habitat

Say to students

"You are going to use your science knowledge to find out about healthy habitats in your local environment."

Focus questions

Q. *Where do you think we would find some healthy habitats close to us?*

A. For example: in the vegetable garden, in the bush, in the paddock, in the park

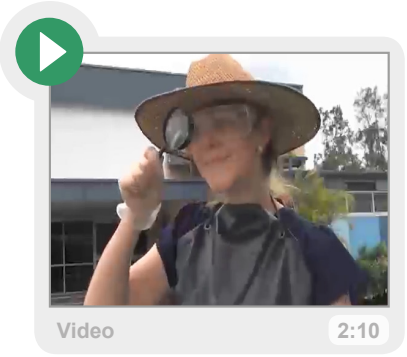
Q. *Why do you think that area will have healthy habitats in it?*

A. For example: I have seen lots of little creatures there; the plants are always green and healthy.

3. Watch the **Video — Backyard investigation**.

   This video demonstrates the use of appropriate and safe clothing when conducting science investigations outdoors, the appropriate treatment of living things and the use of a magnifying glass.

   Inform students that they need to pay attention to the safety rules, although they will not be collecting any plants or animals.



4. Select one area of the local environment in which to observe healthy habitats.
   a. Distribute **Sheet 11 —** Field study record: Healthy habitats.
   b. Support students to read and complete information on page 1 of the sheet.

> **Note**
>
> Photograph or draw a picture of the area you are investigating. Attach the photo or drawing to **Sheet 11** after the walk.
>
> Using **Sheet 11**, help students to circle what they will need, for example, eyes to observe, ears to listen, voices to share observations, and noses to smell.
>
> Remind students that they should not touch anything unless directed to do so.

5. Explain to students that they will now go outside on a field walk to observe some healthy habitats in the selected area.
   a. Tell students that they are to take **Sheet 11**, a pencil, a clipboard and a camera for recording their observations.
   b. Remind students about safety precautions as in the video, including:
      - wearing a sun-safe hat and protective shoes
      - being careful when touching certain materials, for example: thorns
      - being on the lookout for tiny creatures that may harm or be harmed
      - leaving the plants intact by not removing any parts
      - washing their hands when returning from the walk.
   c. Lead students outside to identify and observe the area selected, for example: a garden, a rainforest, a paddock, a park.
      - Photograph the area for adding to page 1 of **Sheet 11**.
      - Encourage students to observe the variety of habitats in the area (for example: under a leaf, in a log, on a tree).
      - Photograph a range of habitats. (**Note:** These photographs will be used in the next lesson.)
6. Tell students to choose one of the healthy habitats to make more detailed observations about. Instruct students to observe this habitat in detail and record the information on the sheet by circling the different types of living things, and other things, they can see (page 2).

Share observations

7. Take students back inside.

   a. Discuss features of the habitat that make it healthy.

> **Say to students**
>
> Scientists ask 'What could happen if …?' questions to help them find out about what could happen if changes occurred in habitats.
>
> They ask questions such as 'What could happen if the pond dried up?'

   b. Ask students to think about their own questions about changes that could occur in habitats to make them unhealthy, for example:
      - What could happen if there was no shade for the plant? (For example: The plant may burn with too much sunlight.)
      - What could happen if there was no shelter for the animal? (For example: It might be cold at night or in the winter, and might be too hot without shade.)

   c. Keep **Sheet 11** for use in the next lesson.

> **Say to students**
>
> In the next lesson, you will be learning more about healthy habitats that provide for the needs of living things. You will sort the information (data) you have collected in this lesson.